



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/824,277

04/14/2004

Marvin Ruffin

04263334

6201

7590

07/11/2006

Wayne L. Tang
MAYER, BROWN, ROWE & MAW LLP
P.O. Box 2828
Chicago, IL 60690-2828

EXAMINER

SHALLENBERGER, JULIE A

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/824,277

Applicant(s)

RUFFIN, MARVIN

Examiner

Julie A. Shallenberger

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6 and 8-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-28 is/are allowed.
- 6) ☒ Claim(s) 6, 8-14, 29 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/12/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6,9,10,12,13, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartur (6,652,158) in view of Sommers (6,796,698) and further in view of Keplinger (5,345,531).

Bartur teaches a light emitting diode lighting device comprising an optical fiber mounting bracket 114, optic fiber 20, diode mounting bracket 112 including multiple collars 16 and 120 facing the receiving end of the optic fiber, but lacks the teaching of the optic fiber having a core material and a surrounding cladding material and a diode reflector assembly attached to the multiple collars, but lacks the teaching of reflector assemble attached to the multiple collars, and the optic fiber having a core material and a surrounding cladding material.

In regard to claims 6, 29, and 30, Sommers teaches a reflector 22 with a conical body for focusing light and a heat sink 44 on the end opposite from the open portion. Sommers also teaches a heat sink attached to the conical reflector, with vanes 48 on the opposite side, and the heat sink is thermally coupled to the LED.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Bartur's lighting device with Sommers' light fixture comprising a

Art Unit: 2875

reflector, and heat sink in order to maximize the amount of light emitted by the lighting device.

In regard to claims 9,10, and 29, Keplinger teaches an optical fiber with core material 13 and cladding material 18. Keplinger also teaches (in column 3 lines 53-54) the outer jacket 18 can be colored as claimed in 9 or it can be clear (column 3 line 43) as claimed in 10.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Bartur's lighting device and Sommers' LED and reflector assembly with Keplinger's optical fiber, having a coating material, and jacket in order to maximize the amount of light emitted by the lighting device.

In regard to claims 12 and 13, Sommers teaches red, yellow, and green LEDs as well as a combination of the three producing white light.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Bartur's lighting device with Sommers' teaching of multiple colored LED's in order to offer a variety of colors emitted by the light fixture.

Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartur, Sommers, and Keplinger, in view of Prescott (4,964,692).

In regard to claims 8 and 11, Bartur, Sommers and Keplinger teach the elements described above, but they lack the teaching of a cladding material that causes total reflection as claimed in 8. Prescott teaches (in column 2 lines 7-12) the use of a clad layer with low reflective index in order to subject the core to total reflection as claimed in

Art Unit: 2875

8. Prescott also teaches an optic fiber that can be bent into any shape (in column 6 lines 4-7) as claimed in 11.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Bartur's lighting device, Sommers' reflector assembly and Keplinger's cladding with Prescott's clad layer (for total reflectivity) and the bendable shape for flexibility in mounting and usability of the fiber optic lighting device.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bartur, Sommers and Keplinger in view of Bourn (6,290,382).

Bartur, Sommers and Keplinger teach the invention described above, but lack the teaching of the multiple LEDs arranged symmetrically in relation to the optic fiber.

Bourn teaches multiple LEDs arranged symmetrically in relation to an optic fiber (see figure 12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Bourn's symetirical LED arrangement relative to an oprical fiber with Bartur's LEDs focused on an oprical fiber in order to provide even more even lighting.

Allowable Subject Matter

Claims 15-28 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

In regard to claim 15, Bartur teaches a support bracket 112 with a flat bottom and two opposite ends, a vertical support are 114 on first side of support bracket, an optic fiber 20 on vertical support arm, multiple collars 16 and 120 with diode assemblies, but lacks the teaching of a mounting arm with multiple collars which is attached to the second end of the support bracket and facing the receiving end of the optic fiber.

In regard to claim 25, Bartur teaches a base member 112 with a flat bottom and two opposite sides, a vertical support member 114 attached to the first end of the base, an optic fiber 20 attached to the vertical support, multiple collars 16 and 120 with diode assemblies, but lacks the teaching of a mounting support attached to the second end of the support bracket and facing the receiving end of the optic fiber.

The prior art fails to show or teach the structure described above and a mounting arm separate from the support bracket or mounting support separate from the base member for mounting the multiple collars with LED reflector assemblies to face an optic fiber.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie A. Shallenberger whose telephone number is (571)272-7131. The examiner can normally be reached on Monday - Friday 830-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on 571-272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Julie Shallenberger
Examiner AU 2875



Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800